INEOS ABS

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January 28, 2014

Attn: Compliance Tracker, AE-17J
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

RE: Consent Decree Civil Action No. 1:09-CV-545
Effective Date February 4, 2010

Dear Sirs:

Please find attached the Semiannual Report for the second Half 2013. Please contact me at (513) 467-2184 or bradley.fattlar@ineos.com if you have any questions concerning the submitted information.

Respectfully Submitted,

Bradley Fattlar
Air Quality Engineer
INEOS ABS (USA) Corporation

cc: M. Palermo, USEPA Region 5
B. Weinburg, OEPA
G. Bachmann, Ohio AG
B. Pray (M. Kramer), SWOAQA

INEOS ABS (USA) CORPORATION'S ADDYSTON, OH PLANT CONSENT DECREE SEMIANNUAL REPORT

Consent Decree Civil Action No. 1:09-CV-545
Effective Date February 4, 2010

Reporting Period: 07/01/13 – 12/31/13

I. INTRODUCTION

The following report contains the required information about INEOS ABS' compliance activities associated with the requirements in Paragraph 50 a. and 50 b. in the Consent Decree.

II. COMPLIANCE REQUIREMENTS

Per Section VI (Compliance Requirements) of the Consent Decree, INEOS ABS met the following compliance requirements:

A. FLARE COMPLIANCE REQUIREMENTS

1. Steam-to-Vent Gas Ratio < 3.6 to 1 as a 1-hour Block Average (Paragraph 18 a.)
   No deviations in the second half of 2013.
2. Net Heating Value of Vent Gas > 385 BTU/scf as a 1-hour Block Average (Paragraph 18 b.)
   This is no longer a requirement.
3. NHVFG > 200 BTU/scf as a 1-hour Block Average (Paragraph 19)
   Two deviations were reported in the third quarter but were later rescinded.
4. Flare Monitoring Requirements (Paragraph 20 & 23)
   Required data was measured, calculated, and recorded at all times that the Process P001 Flare was in operation and reports were submitted quarterly as stated in the Quarterly Reports submitted on October 11, 2013 and January 14, 2014.
5. Flare Monitoring Instruments Standard Operating Procedure (SOP) (Paragraphs 21 & 22)
   The SOP was submitted on March 5, 2010. Conditional approval from U.S. EPA was received on June 7, 2010. INEOS ABS submitted a Notice of Dispute on June 24, 2010, which has yet to be resolved.
6. Passive FTIR (Paragraph 24)
   The Passive FTIR Work Plan was submitted August 17, 2009 and a revised Passive FTIR Work Plan was submitted September 28, 2009. The U.S. EPA approved the Passive FTIR Work Plan on October 28, 2009. The testing was performed November 3 through November 5, 2009. The Passive FTIR Test Report was submitted on July 6, 2010, and a Supplemental Report was submitted on August 6, 2010.
7. P001 Process Evaluations (Paragraph 25)

Ambient air monitoring began at a new monitoring station (Kibby Lane Monitoring Station) in August 2012. Detections of 1,3-butadiene at the monitoring station occurred on 7/15, 7/21, 7/27, 8/2, 10/7, 10/13, 10/25, 11/24, 12/30. Evaluations for all events were reported to Southwest Ohio Air Quality Agency within 15 days of receiving the sampling results.

B. BIOFILTER PROJECT

1. Biofilter Work Plan (Paragraph 28)

   The Biofilter Work Plan was submitted on March 19, 2010 and approved by Ohio EPA on April 14, 2010.

2. Biofilter Operations and Monitoring Plan (Paragraph 28 a.)

   The Biofilter Operations and Monitoring Plan was submitted on April 18, 2011.

3. Quarterly Deviation Reports (Paragraph 28 b.)

   Quarterly Deviation Reports were submitted on October 22, 2013 and January 28, 2014. Semiannual Deviation Report was submitted on January 28, 2014.

4. Biofilter Installation Schedule (Paragraph 29)

   Construction of Phase I of the Biofilter was completed on December 2, 2010. Construction of Phase II was completed on June 24, 2011.

C. EMISSION UNIT P035 SCRUBBER PROJECT

This emission unit continues to be idle and hence there are no compliance requirements for this project (Paragraphs 30 & 31).

D. MAIN DUCT LEAK DETECTION AND REPAIR (LDAR) STANDARD OPERATING PROCEDURE (SOP)

The Main Duct LDAR SOP was submitted for approval on March 5, 2010 and the first inspection using this SOP was performed on June 25, 2010.
The Main Duct LDAR SOP was approved by the U.S. EPA on July 26, 2010 with comments. A revised Main Duct LDAR SOP was submitted on September 8, 2010. This revised Main Duct SOP was implemented during the 2011 Main Duct yearly inspection performed on June 30, 2011.

E. ENHANCED LEAK DETECTION AND REPAIR (APPENDIX A)

1. Part A: General

   A written facility-wide LDAR Program Plan was written by May 4, 2010. The Plan was reviewed and updated on December 29, 2011. The Plan was reviewed and updated on November 28, 2012. The plan was reviewed and updated on February 5, 2013. The plan was again reviewed and updated, it was approved on December 31, 2013.

2. Part B: Monitoring Frequency

   Monitoring is now being done in the required timeframe for the instances which were mentioned on the second half 2013 Consent Decree Semiannual Report. There was one instance of non-compliance in 2013, but it was due to a delayed start date of a new capital project in DN3.

3. Part C: Monitoring Methods and Equipment

   Method 21 is being used to perform monitoring of all Covered Equipment using a Toxic Vapor Analyzer 1000B Flame Ionization Detector attached to a datalogger which directly electronically records the required data. The monitoring data is transferred to an electronic database daily as of

January 1, 2010. As of January 1, 2010 (prior to the Effective Date of the Consent Decree), calibration of the LDAR monitoring equipment is being performed per Method 21 and calibration drift assessment are performed prior to and completion of each monitoring shift.

4. Part D: LDAR Action Levels
   Lower leak repair action levels were implemented on January 1, 2010 (prior to the Effective Date of the Consent Decree).
5. Part E: Leak Repairs
   As of February 4, 2010, Quasi-Directed Maintenance is being performed during all repair attempts. There were no instances where re-screen testing was not completed within the required timeframe. Four leaking valves were replaced or repacked in the second half of 2013. Drill and tap repairs were not performed as there is a significant safety risk to perform drill and tap on valves in HAP service as the materials inside the piping is flammable and/or highly explosive.
6. Part F: Delay of Repair (DOR)
   As of January 1, 2010 (prior to the Effective Date of the Consent Decree), the plant manager or his designee signs all DOR. As of March 5, 2010, the Covered Equipment on the DOR list continues to be monitored at their required frequency.
7. Part G: Equipment Replacement/Improvement Program (ERIP)
   A list of all valves in the LDAR Program was submitted on March 5, 2010. Attachment #1 includes additional information on the ERIP, including each piece of equipment replaced or improved in the second half of 2013 and the schedule for future replacements or upgrades.
8. Part H: Management of Change (MOC)
   MOC is being completed at the facility. All MOC documentation requires a review by the Environmental Department.
9. Part I: Training
   Initial general training for all employees was completed in November 2011. Annual refresher training was completed in October 2013.
10. Part J: Quality Assurance/Quality Control (QA/QC)
    On a daily basis, technicians are certifying that the data collected represents that monitoring performed by verifying the sensors. Two QA/QC audits were completed on September 2, 2013 and November 19, 2013. No corrective were required from these audits.
11. Part K: LDAR Audits and Corrective Actions
    The LDAR External Audit was completed in September 2013.
12. Part L: Certification of Compliance
    The 2010 Certificate of Compliance was submitted on February 14, 2011.
13. Part M: Recordkeeping
    All records are being kept as required in Appendix A of the Consent Decree.
14: Part N: Reporting
    The 2013 First Half Appendix A Compliance Status Report was submitted on July 26, 2013.

F. PERMITS

The PTI application for the Biofilter was submitted to the Ohio Environmental Protection Agency on May 16, 2011. No other permits were required to be completed and/or submitted in the first half of 2012 (Paragraphs 35

through 39). The Final PTI was issued on October 12, 2011.

G. CERCLA/EPCRA REQUIREMENTS

1. Spill/Release Reporting Policy (Paragraph 41)
   There was no requirement to revise the policy during the first half of 2013.
2. Reportable Quantity Root cause Analysis (Paragraph 42)
   There was one reportable quantity air release in the first half of 2013. The root cause analysis was done within 96 hours and corrective measures were implemented first thing. The full formal investigation was completed on September 20, 2013. Two letters were submitted (US EPA Region 5, OEPA and HCDES) detailing the event and the actions taken.
3. Training (Paragraph 43)
   Training on Spill Response Procedures was completed in April 2012.
4. Program Evaluation and Report (Paragraph 44 through 47)
   No evaluation or report was required for the second half of 2013. A review of the TRI report for reporting year 2012 was completed on May 28, 2013 (Paragraph 44 b.).
5. Program Evaluation Corrective Actions (Paragraph 48)
   No corrective actions were required in the first half of 2013.

H. AMBIENT AIR MONITORING

The monitoring station at Meredith Hitchens Elementary School was dismantled in late October 2011 due to the change in ownership of the building. Starting on November 11, 2011, HCDES began collecting grab samples at the ground level near the school every six days; they ceased grab samples in January 2012. Ambient air monitoring began at a new monitoring station (Kibby Lane Monitoring Station) in August 2012. INEOS ABS continued to reimburse HCDES for costs associated with the analysis of ambient air samples.

III. COSTS INCURRED DURING PERIOD

Per Paragraph 50 a. of the Consent Decree, the following costs were incurred by INEOS ABS during the second half of 2013:

LDAR Technician/Maintenance	$285,000
Equipment Replacements (Pumps/Valves)	$ 22,300
LDAR External Audit	$ 22,534
Total	$329,834

IV. NONCOMPLIANCE WITH CONSENT DECREE

A. NHVFG Value Deviation –Third Quarter 2013

On August 21, 2013 a letter was submitted making a note of two instances in the month of July when the Net Heating Value of the Flare Gas (NHVFG) at the Flare was less than the required 200 BTU/scf as a one-hour Block Average. Later analysis revealed at that time there were minor errors in our previous calculations. These errors made extra unnecessary corrections in molecular weight calculations. This caused the

reported NHVFG numbers to be less than they actually were. The first instance on July 5th at 8:30 AM was reported to be 198 BTU/scf and is now calculated to be 200 BTU/scf. The second instance on July 15th at 10:55 PM was reported as 199 BTU/scf and is now calculated to be 202 BTU/scf. Based on the information now available to us there were no consent decree flare violations in the third quarter of 2013.

B. Extension to Determine Reportable Quantity –Third Quarter 2013

On August 28 a letter was submitted, asking for an extension to analyze whether or not the company had a reportable release of volatile organic carbons out of the fresh air intake on the main duct leading into the boiler.

C. Notification of a Reportable Quantity of Acrylonitrile – Third Quarter 2013

On September 17 a letter was submitted to make a notification of a reportable quantity of acrylonitrile was released to the atmosphere in one 24 hour period, August 11 at 2:30 PM to August 12 at 2:30 PM. The amount of acrylonitrile released during that period was 160 pounds from the fresh air intake on the main duct and a series of unrelated malfunctions which occurred in the same time period.

D. Missed monitoring of DN3 connectors and difficult to monitor to components

At the end of the 2013 calendar year 993 connectors and difficult to monitor components were not monitored on their annual frequency. This was due to the installation of a capital project. The unit was shutdown on August 30th and scheduled to come back up in mid-October. The project was delayed into the 2014 calendar year thus the required components to measured annually were not monitored.

V. CERTIFICATION

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Act, and 18 U.S.C.§§ 1001 and 1341.

Respectfully Submitted,

Eric Cassisa
Site Manager, NAFTA
INEOS ABS (USA) Corporation

INEOS ABS (USA) CORPORATION'S ADDYSTON, OH PLANT
CONSENT DECREE SEMIANNUAL REPORT
ATTACHMENT # 1
Equipment Replacement/Improvement Program

Consent Decree Civil Action No. 1:09-CV-545

Effective Date February 4, 2010

Reporting Period: 07/01/13 – 12/31/13

INEOS ABS - Addyston Plant
LDAR ERIP Outstanding Improvement

1/28/2013

Tag #	Process Unit	Component Description	Leak Detected	Replace/ Repack By Date
07099	DIN1	Refigeration recycle tank	10/29/13	Next Maintenance Turn Around
11994	DIN1	AN filter system	10/04/13	Next Maintenance Turn Around
02068	DIN2	Recycyle FCV	10/27/13	Next Maintenance Turn Around
01963	DIN2	Irganox in R2 feed tree	10/23/13	Next Maintenance Turn Around
00524	DN1	DN3 pruge into spent monomer tank	11/22/13	Next Maintenance Turn Around
03816	DN1	Recycle to top of DV1 FM man outlet valve	11/27/13	Next Maintenance Turn Around

INEOS ABS - Addyston Plant
LDAR ERIP Outstanding Improvement

1/28/2014

Tag #	Process Unit	Component Description	Leak Detected	Date Replaced or Repacked
01051	Tank	EM BD Sphere Top	05/27/11	11/20/13
6012	Tank	EM BD Sphere Top	03/10/11	11/20/13
6025	Tank	EM BD R/C to sphere	03/17/11	11/20/13
01401	DIN1	AN Totalzer Inlet	09/18/13	11/13/13
02542	DIN1	DIN1 R1 Feed Tree	07/24/13	11/13/13
04441	EMUL	Valve-pressure gauge on water separator recirc line	11/29/12	11/20/13
08286	EMUL	Valve-Relief bypass valve at inlet side of filter	11/29/12	11/20/13
09037	EMUL	Water separator outlet valve to Bd storage tank	10/11/12	11/20/13
07981	DIN1/ TK Fm	C1 Recirculation inlet valve	03/06/12	11/26/2013
07984	DIN1/ Tk Fm	Valve-C1 Level indicator outlet valve	11/13/11	11/26/2013
11221	DIN1/ TK Fm	C1 Auto Valve on inlet side of transfer pump	03/06/12	11/26/2013
00605	DIN1/ TK Fm	Acrylonitrile tank manual inlet to transfer pump valve	05/24/13	11/26/2013
10483	DIN1/ TK FM	AN transfer line drain valve inside tunnel-south side at ground	08/25/12	12/4/2013

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings -
Greater than 250 ppm Leak

1/28/2014

Tag #	Process Unit	Component Description	Leak Detected	Date Replaced	Date Repacked	Shutdown Reqd?	Replace/ Repack By Date	Comments
00826	DIN1	Outlet valve 30 building west pump	11/05/13	11/13/13		NO*	12/05/13	On Delay of Repair *Isoltaed from VOC service
08360	DIN1	R2 feed line Man valve to melt line	10/27/13	11/13/13		NO*	11/26/13	On Delay of Repair *Isoltaed from VOC service
02193	DIN2	Recycle to Recycle condenser	10/27/13	11/19/13		NO*	11/26/13	On Delay of Repair *Isoltaed from VOC service
00524	DN1	DN3 purge into spent monomer tank	11/20/13	11/22/13		NO	12/20/13	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Between 100 ppm and 250 ppm Leak
July 1, 2013 - September 30, 2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
01401	DIN1	Acrylonitrile Totalizer Inlet	09/18/13	105	11/13/13	
02542	DIN1	R-1 Feed Tank Purge to Vapor Line Man Valve	07/24/13	132	11/13/13	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Between 100 ppm and 250 ppm Leak
October 1, 2013 - December 31, 2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
07099	DIN1	Refigeration recycle tank	10/29/13	142		
11994	DIN1	AN filter system	10/04/13	130		
02068	DIN2	Recycyle FCV	10/27/13	211		
01963	DIN2	Irganox in R2 feed tree	10/23/13	120		
00524	DN1	DN3 pruge into spent monomer tank	11/22/13	184		
03816	DN1	Recycle to top of DV1 FM man outlet valvve	11/27/13	104		

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Between 100 ppm and 250 ppm Leak
October 1, 2012 - December 31, 2012

1/9/2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
09037	EMUL	Water separator outlet valve to Bd storage tank	10/11/12	146	11/20/13	
04441	EMUL	Valve-pressure gauge on water separator recirc line	11/29/12	487	11/20/13	
08286	EMUL	Valve-Relief bypass valve at inlet side of filter	11/29/12	347	11/20/13	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings -
Between 100 ppm and 250 ppm Leak
July 1, 2012 - September 30, 2012

11/19/2012

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
10483	DIN1/ TK FM	AN transfer line drain valve inside tunnel-south side at ground	08/25/12	183	12/04/13	
01051	DIN1/ TK FM	EM BD Sphere Top	08/23/12	4062	12/04/13	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings -
Between 100 ppm and 250 ppm Leak
January 1, 2012 - March 31, 2012

7/19/2012

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
6025	EMUL/ TK Fm	Bd unloading charge line to sphere drain valve south of dike wall	03/17/12	165	11/20/13	
07981	DIN1/ TK Fm	C1 Recirculation inlet valve	03/06/12	123	11/26/13	
11221	DIN1/ TK Fm	C1 Auto Valve on inlet side of transfer pump	03/06/12	106	11/26/13	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings -
Between 100 ppm and 250 ppm Leak
October 1, 2011 - December 31, 2011

1/28/2014

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
07984	DIN1/ Tk Fm	Valve-C1 Level indicator outlet valve	11/13/11	742	11/26/13	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings -
Between 100 ppm and 250 ppm Leak
February 4, 2010 - June 30, 2010

11/23/2011

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Calc. Conc.	Date Replaced	Date Repacked	Comments
01051	EMUL/ TK FM	Bd Sphere (top) man vent vlv	05/27/11	117	99	11/20/13		No improvement needed
6012	EMUL/ TK FM	Autoblock on top of sphere to compressor house	03/10/11	126	107	11/20/13		